

REMARKS:

In the foregoing amendments, claim 1 was amended by including the limitations of claim 3 therein. Similarly, claim 7 was amended by including the limitations of claim 10 therein. Claims 3 and 10 were canceled. Claims 1 and 7 were further amended by defining that the polyphenylene sulfide resin composition contains an olefin resin (b) that is a mixture of olefin resin components (b-1) and (b-2). Claims 14 and 15 were added to the application and define relative amounts of the (b-1) and (b-2) components, along the lines described in applicant's specification at page 36, line 7-20, and elsewhere. The foregoing amendments are being made to clarify what was already implied in applicant's claims and these amendments are not narrowing amendments and are not being made for reasons substantially related to patentability presented. After the foregoing amendments, claims 1, 2, 4-9 and 11-15 are in the application for consideration by the examiner.

The applicant appreciates the examiner's comments concerning the information disclosure statement filed March 11, 2005, in section 1 on page 2 of the Official action. It is greatly appreciated that the examiner found European and U.S. equivalents of the German DE 68923583 in English, which European and U.S. equivalents were considered by the examiner and cited in the PTO-892 form attached to the outstanding Office action.

The Official action set forth a rejection of claims 1-13 under 35 U.S.C. § 102(e) as being unpatentable over PCT application publication No. WO 2001/27204 A1 of Matsuoka *et al.* (Matsuoka). This document was published in Japanese and for examination purposes, the examiner relied on the corresponding U.S. patent No. 6,830,792 of Matsuoka *et al.* (Matsuoka). The 102(e) rejection is set forth on pages 3-5 of the Official action. Applicant respectfully

submits that the inventions defined in claims 1, 2, 4-9 and 11-15 are patently distinguishable from the teachings of Matsuoka within the meaning of 35 U.S.C. §102 or 35 U.S.C. §103 for at least the following reasons.

Independent claims 1 and 7 define a resin molded product by melt molding of a polyphenylene sulfide resin composition and a fuel tank made with the same comprising, *inter alia*:

- a polyphenylene sulfide resin (a-1) *that is not linked by thermal oxidation*;
- a polyphenylene sulfide resin (a-1) *having an amount of extracts by chloroform of 2.2 % by weight to 4.5 % by weight*; and
- a (b) olefin resin that is *a mixture of*:
  - *(b-1) an olefin copolymer* prepared by introducing an epoxy group-containing monomer component into an olefin (co)polymer, and
  - *(b-2) an ethylene- $\alpha$ -olefin copolymer* prepared by copolymerizing 15 % by weight to 35 % by weight of ethylene and 65 % by weight to 85 % by weight of  $\alpha$ -olefin containing 3 to 16 carbon atoms.

With respect to the claim limitation that the polyphenylene sulfide resin (a-1) *is not linked by thermal oxidation*, the Official action indicated that Matsuoka discloses that the PPS resin can be prepared by any known method, thus not requiring it to be crosslinked by thermal oxidation at column 7, lines 27-43. However, it is respectfully noted that the same portion of Matsuoka includes an extensive discussion concerning heating the PPS resin for a period of time, whereby the PPS resin is crosslinked to obtain a melt viscosity at the desired level. Accordingly, applicant respectfully submits that any person skilled in the art, reviewing the teachings of Matsuoka,

would understand that the PPS resin proposed by Matsuoka is thermally crosslinked, in contrast to the requirements of applicant's claims. At the very least, applicant respectfully submits that the teachings of Matsuoka would not motivate one of ordinary skill in the art to a PPS resin that is not crosslinked, as required in the present claims. For such reasons, applicant respectfully submit that the resin molded product by melt molding of a polyphenylene sulfide resin compositions and fuel tanks defined in the present claims are patently distinguishable from the teachings of Matsuoka.

With respect to the claim limitation that the polyphenylene sulfide resin (a-1) has *an amount of extracts by chloroform of 2.2 % by weight to 4.5 % by weight*, applicant cannot find where the teachings of Matsuoka remotely contemplate or suggest this structure of the present claims nor the lower chloroform extraction amounts required in claims 4 and 11. Therefore, applicant respectfully submits that the resin molded product by melt molding of a polyphenylene sulfide resin compositions and fuel tanks defined in the present claims are patently distinguishable from the teachings of Matsuoka.

Concerning the claim limitation that the (b) olefin resin is *a mixture of the (b-1) an olefin copolymer and the (b-2) an ethylene- $\alpha$ -olefin copolymer*, the teachings of Matsuoka do not disclose or suggest such a mixture of olefin resins. In contrast, the teachings of Matsuoka propose a PPS resin composition in which only one olefin resin is included. The presently claimed PPS resin composition including a mixture of two different olefin resin provides advantages to the presently claimed invention, such as improve the flowability, barrier properties and strength against impact, which advantages are not present in the material proposed by

Matsuoka. For example, the PPS resin composition of the present claims has an Izod impact strength of 700 to 800 J/m, whereas that of the material proposed by Matsuoka is 40 to 56 J/m.

At least for the foregoing reasons, applicant respectfully submits that the inventions defined in claims 1 and 7, as well as the claims that depend thereon, are patently distinguishable from the teachings of Matsuoka. In addition, new claims 13 and 14 define relative amounts of the (b-1) an olefin copolymer and (b-2) an ethylene- $\alpha$ -olefin copolymer in the mixture of olefin resins. The teachings of Matsuoka have absolutely no discussion therein concerning such a mixture of olefin resins. Therefore, applicant respectfully submits that the teachings of Matsuoka could not possibly disclose or motivate one of ordinary skill in the art to the inventions as defined in claims 13 and 14.

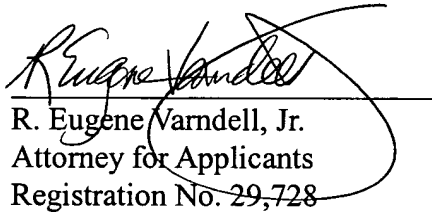
The Official action stated that the PPS composition proposed by Matsuoka would inherently have the melt flow rates (MFR), such as required in present claims 1, 4, 5, 7, 8, 11 and 12. Applicant respectfully submits that this is not possible. Firstly as discussed above, the PPS proposed by Matsuoka is thermally crosslinked, but the PPS of applicant's claims is not thermally crosslinked. Secondly as discussed above, the PPS proposed by Matsuoka does not have an amount of extracts by chloroform of 2.2 % by weight to 4.5 % by weight, as presently claimed. Thirdly as discussed above, the PPS composition proposed by Matsuoka does not contemplate or suggest an olefin resin that is a mixture of (b-1) an olefin copolymer and (b-2) an ethylene- $\alpha$ -olefin copolymer. Due to the numerous differences between the PPS and the PPS composition proposed by Matsuoka and that defined by the present claims, applicant respectfully submits that it is impossible for the teachings of Matsuoka to contemplate or suggest the melt flow rates (MFR), such as required in present claims 1, 4, 5, 7, 8, 11 and 12. Therefore, applicant

respectfully submits that these claims are patently distinguishable from the teachings of Matsuoka.

Based on the above, a formal allowance of claims 1, 2, 4-9 and 11-15 is respectfully requested. While it is believed that all the claims in this application are in condition for allowance, should the examiner have any comments or questions, it is respectfully requested that the undersigned be telephoned at the below listed number to resolve any outstanding issues.

In the event this paper is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which become due, may be charged to our deposit account No. 50-1147.

Respectfully submitted,  
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